Key Elements in the Care of Asthma Patients

Initial Diagnosis:

- ▸ Establish asthma diagnosis.
  - • Consider asthma in the differential diagnosis.
  - • Use spirometry.
  - • Use trials of medication.

Follow-up Visits:

- ▸ Classify severity using NHLBI standards.
  - • Use objective measures (spirometry or peak flow).
  - • Use patient report of symptoms.
- ▸ Treat based on severity using the step-care approach.
  - • Provide/adjust quick relievers and long-term controllers to attain optimal functioning.
- ▸ Educate patients to manage their own care.
  - • Understand role of quick relievers and long-term controllers.
  - • Self-monitor using peak flow meter.
  - • Recognize signs/symptoms of worsening asthma.
  - • Know when to call primary care provider.
- ▸ Provide a written action plan for patient.
- ▸ Preventive maintenance/trigger avoidance.
  - • Assess triggers and plan environmental controls with patient.
  - • Vaccinate for influenza.
  - • Provide smoking cessation counseling for patient and family.
- ▸ Follow-up on regular schedule.

Emergency Management of Asthma Exacerbations:

- ▸ Initial objective assessment using:
  - • Pulse oximetry.
  - • PEF or FEV_1.
- ▸ Treat promptly using:
  - • Corticosteroids.
  - • $Beta_2$-agonists.
- ▸ Assess response to therapy using objective measures.
- ▸ Discharge patient with appropriate education, including:
  - • Written instructions.
  - • Appropriate follow-up plan.

Telephone Triage:

- ▸ Assess the severity of the exacerbation.
- ▸ Review the action plan with patient.

Table A. Step-Care Approach for Prescribing Asthma Medications Based on Severity

Severity Level	Signs/Symptoms	Nocturnal Symptoms	Lung Function	Drug Therapy
Mild Intermittent	• Symptoms ≤ 2 times/week • Exacerbations brief • Asymptomatic/normal PEF between exacerbations	≤ 2 times/month	FEV_1 or PEF ≥ 80% predicted PEF variability < 20%	***Quick Relief*** • Inhaled short-acting $beta_2$-agonist PRN ***Long-Term Control*** • Usually no daily medication needed
Mild Persistent	• Symptoms > 2 times/week but < 1 time/day • Exacerbations can affect activity	> 2 times/month	FEV_1 or PEF ≥ 80% predicted PEF variability 20–30%	***Quick Relief*** • Inhaled short-acting $beta_2$-agonist PRN ***Long-Term Control*** • Inhaled corticosteroid (LOW dose) • May also consider theophyline SR, leukotriene modifier, cromolyn, or nedocromil • For patients with ASA sensitive asthma, consider using leukotriene modifiers
Moderate Persistent	• Symptoms daily • Exacerbations ≥ 2 times/ week and affect activity • Daily use of quick relief medications	> 1 time/week	FEV_1 or PEF ≥ 60% < 80% predicted PEF variability > 30%	***Quick Relief*** • Inhaled short-acting $beta_2$-agonist PRN ***Long-Term Control*** • Inhaled corticosteroid (MEDIUM dose) *or* • Inhaled corticosteroid (LOW–MEDIUM dose) and inhaled long-acting $beta_2$-agonist *or* • Inhaled corticosteroid (LOW–MEDIUM dose) and theophyline • Consider referral
Severe Persistent	• Symptoms continuous • Limited physical activity • Exacerbations frequent	Frequent	FEV_1 or PEF < 60% predicted PEF variability > 30%	***Quick Relief*** • Inhaled short-acting $beta_2$-agonist PRN ***Long-Term Control*** • Inhaled corticosteroid (HIGH dose) and inhaled long-acting $beta_2$-agonist *or* • Inhaled corticosteroid (HIGH dose) and theophyline • Oral corticosteroids may be indicated • Consider referral

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